

Changing farming methods helps clean Pond Creek

By Ronda Robinson

Special Publications correspondent

Drs. Marty and Michelle Bilderback are licensed veterinarians who own two farms in the Pond Creek Watershed area, comprising Loudon, McMinn and Monroe counties. Although not currently practicing medicine, she farms and he teaches at Hiwassee College in Madisonville.

Ten years ago, they decided to keep their livestock out of the creek with a fence, providing an alternative watering source. Since then, the Bilderbacks have noticed an improvement in clarity of the creek running through their property. They can see the gravel bottom and mussels in the streambed.

“Overall, I’m really glad we did it,” says Michelle Bilderback. “Everything was re-fenced, and we had to think a little bit out of the box – how the cows were going to move around where they needed to go. . . . We built a creek crossing for the cows to go through. And we can drive through it, too.”

The Bilderbacks are among area farmers who are helping to clean up the watershed using different methods of pasture management and renovation. The University of Tennessee Extension, an off-campus educational unit of UT’s Institute of Agriculture, is working with many of them.

“This is ongoing outreach research,” says Dr. Forbes Walker, associate professor of Biosystems Engineering and Soil Science.

Walker has coordinated the Pond Creek watershed improvement outreach program near Sweetwater since 2001. The watershed comprises 24,000 acres, mainly used for dairy and cattle farming.

UT studies have shown consistently high levels of sediment, nutrients and pathogens throughout Pond Creek.

Segments of the primary stream running through Pond Creek and two of its major tributaries, Greasy Branch and Mud Creek, are on the Tennessee Department of Environment and



Photos by Dr. Forbes R. Walker/UT

Dr. Marty Bilderback shows the fencing put up to keep livestock out of Pond Creek.

Conservation’s list of impaired waterways. The state agency identifies sources of pollution such as livestock in the stream and animal feeding operations.

UT, in collaboration with farmers, homeowners and partners, including the U.S. Environmental Protection Agency, Tennessee Valley Authority and Tennessee Department of Agriculture, is helping to improve the watershed through a restoration plan.

According to Walker, efforts are tailored to individual farms and operations to improve soil, crop and livestock management without jeopardizing agricultural production.

“One of our big thrusts has been to encourage farmers to improve pasture

management,” says the environmental soil specialist. He notes that reduced erosion means improved grass, better nourished cows, and therefore more beef or milk to sell.

“It’s a win-win situation.”

Lena Beth Carmichael, UT Extension area specialist, is the watershed coordinator. Based in Athens, she works directly with farmers on ways to improve water quality, such as keeping livestock manure out of the creeks.

To help minimize expenses for farmers trying new approaches, UT and partners have secured grants to assist with everything from weed control to new watering systems for the animals.

TVA, which has studied Pond Creek, has seen an improvement in water



The new stream crossing.

quality over the last several years. The number of fish and different species in the watershed rose from the beginning of the Pond Creek Watershed restoration project in 2001 to 2006.

“Ultimately, the measure of health of a river is the things that are living in it,” says Walker.